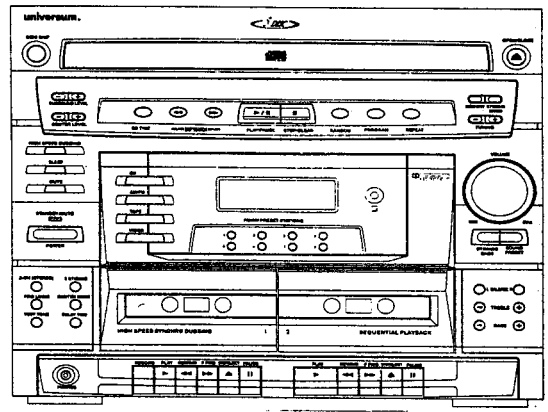
Quelle TECHNISCHER KUNDENDIENST

Technische Unterlage

VTC-CD 3085

Best.-Nr.: **116.734.5**



Verstärkerteil
Maximale Ausgangsleistung:
2 x 600 Watt bei Stereobetrieb
Lautsprechermindestimpedanz:
8 Ohm (Anschlußwert)
Übertragungsbereich:
von 40 Hz.-16 kHz 1,5 dB
Übersprechdämpfung:
30 dB bei 1000 Hz

FM-Bereich (UKW)
87,5 - 108 MHz
Empfindlichkeit:
6 µV
Hub: 22.5 kHz
und S/R - 26 dB
40 µV
Hub: 40 kHz
S/R: 46 dB
Fremdspannungsabstand:
>50 dB
Pilotunterdrückung:
19 kHz = 40 dB
38 kHz = 50 dB

MW-Bereich
MW 521 - 1620 kHz
Empfindlichkeit für
MW 1500 µV, 26 dB S/N

Pro-Logic-Betrieb
Maximale Ausgangsleistung:
2 x 600 Watt Hauptlautsprecher
2 x 45 Watt SURROUND links/ SURROUND rechts
1x 90 Watt CENTER-Kanal

Frequenzgang:
Dolby Surround 100 Hz bis 7 kHz, Matrix 20 Hz bis 20 kHz

Signal-/Rauschverhältnis
(im Surround-Betrieb):
>75 dB
Verzögerungszeit:
20 ms; im Dolby-Betrieb auf 15 und 25 ms umschaltbar
Verzögerungsverfahren:
digital
Eingangsempfindlichkeit (Line-Eingang):
250 mv
Eingangsimpedanz:
47 k Ohm
Maximale Eingangsspannung:
3,5 V

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UTS-Nr.:        999          QUELLE
Best.Nr.:       1167345/01
Ger.Bez.:       UNIVERSUM-TURM

GKz:              G  GERAET
WGT:            659  KOMPLETTE STEREO-TUERME
KD-Sektor:        R  RUNDFUNK
BaumNr.:         00  KEIN DIAGNOSEBAUM VORHANDEN
Klassierung:    STK  STEREOKOMBINATION
IFW-FehlerGru.: 205  RDF.,VERST.,TB.,PHONO,CD,CB
Type/Privileg/Universum.Nr VTC-CD3085 A
Beschreibung
VK-Preis: 1199.00

Serviceart:           01  QUELLE-TKD
Garantie fuer Kunden  06 Monate
Sondervereinbarungen:  0  SIEHE SERVICEART

Garantiereparatur     9999999  QUELLE
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Hinweis zur Verpackungsentsorgung

Verpackungen und Packhilfsmittel der Quelle-Unterhaltungselektronik sind mit Ausnahme von Holzwerkstoffen recyclingfähig und sollen grundsätzlich der Wiederverwertung zugeführt werden.

Als Packhilfsmittel sind bei Quelle nur recyclingfähige Kunststoffe zugelassen, z.B.. In den Beispielen stehen:

** PE für Polyetylen
PP für Polypropylen
PS für Polystrol
02 = PE-HD
04 = PE-LD

Technische Daten

Netzanschluß:
230 V ~ +6 /-10% 50 Hz
Leistungsaufnahme:
450 Watt max
Abmessungen in cm. ca.:
B 42,0 x H 36,0 x T 42,0 cm
Betriebsarten:
Dolby Pro Logic, Dolby 3 Stereo, Stereo/Mono
SURROUND
Lautsprecheranschluß, 16 Ohm
CENTER
Lautsprecheranschluß, 8 Ohm
R = rechter Kanal; L = linker Kanal

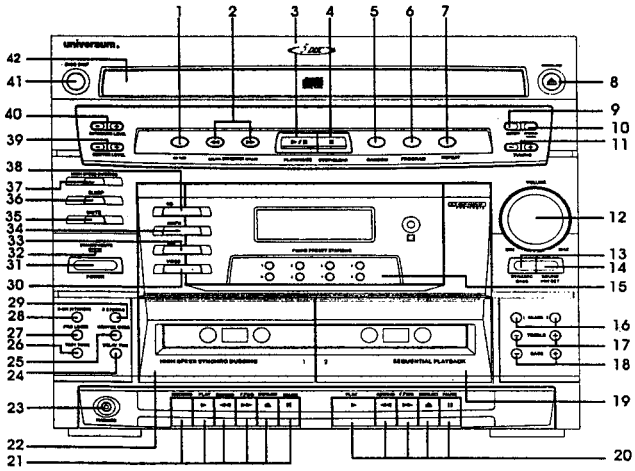
Cassettenteil
Übertragungsbereich Aufnahme-/Wiedergabe: (-8 dB) 63 Hz - 12500 Hz
Geschwindigkeitsabweichung:
1,0 %
Tonband: Normal-Cassetten IEC1

CD-Spieler
Optischer Tonabnehmer:
3-Strahlen-Laser
Fehlerkorrektur:
CIRC
D/A-Umwandler:
16-Bit-linear mit 8-fach Oversampling

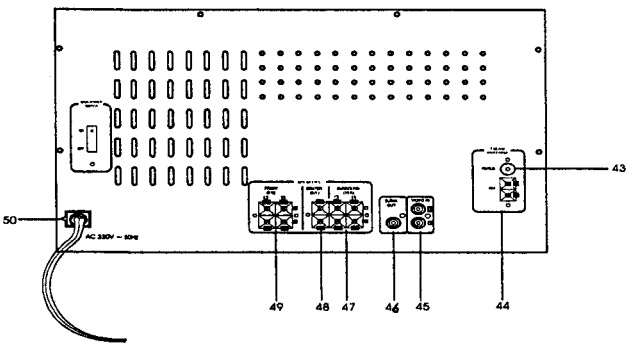
Quelle Schickedanz AG & Co.
Kundendienstzentralleitung Duisburger Str. 57, 90451 Nürnberg
Bei allen Reparaturen sind die gültigen Sicherheitsvorschriften zu beachten

Nachdruck nicht gestattet
Änderungen vorbehalten

Bedienungselemente

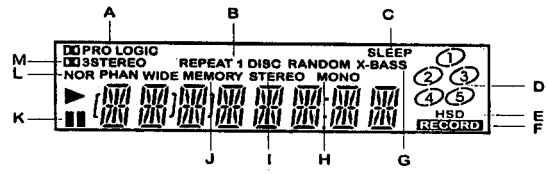


Rückseite

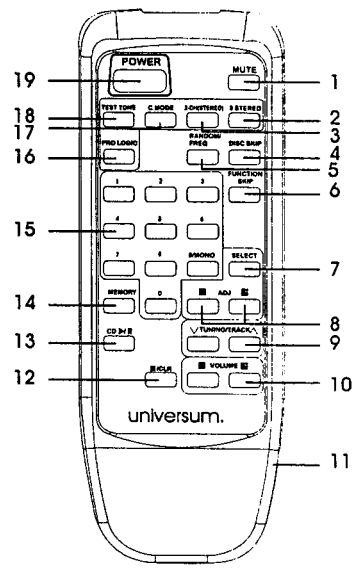


Bedienungselemente

Display



Fernbedung



Bedienungselemente und Funktionen

① **CD-TIME** = Umschalten der Spielzeitanzeige
② **SKIP/SEARCH**
I◀◀ = Titelwahl-/Suchlauf rückwärts
▶▶I = Titelwahl-/Suchlauf vorwärts
③ **PLAY/PAUSE ▶/II** = CD-Wiedergabe und Unterbrechen
④ **STOP/CLEAR** = CD-Wiedergabe beenden, Programmierung löschen
⑤ **RANDOM** = Wiedergabe einer Zufallsreihenfolge
⑥ **PROGRAM** = Speichern der CD-Titel
⑦ **REPEAT** = Wiederholung der gesamten CD-Platte, aller Platten oder eines Titels
⑧ **OPEN CLOSE** = Öffnen/Schließen der CD-Schublade
⑨ **MEMORY** = Senderspeichertaste
⑩ **ST./MONO** = Stereo/Monoumschaltung
⑪ **TUNING**
+ = Einstellen der Frequenz nach oben (höhere Frequenzen)
- TUNING = Einstellen der Frequenz nach unten (niedrigere Frequenzen)
⑫ **VOLUME** = Lautstärkeregler
⑬ **X BASS** = Einschalten des Extra-Baß-Systems
⑭ **SOUND PRESET** = Wahl des Klangbildes *MANUAL, CLASSIC, ROCK* oder *POP*
⑮ **1 - 8** = Senderspeichertasten
⑯ **BALANC L/R** = Lautstärke Ausgleich
⑰ **TREBLE L/R** = Regeln der Höhen +/- 14 dB
⑱ **BASS L/R** = Regeln der Tiefen +/- 14 dB
⑲ Cassettenfachdeckel **Deck 2**
⑳ Laufwerktasten für **Deck 2**
(nur Wiedergabe)
PAUSE = Pause/Unterbrechen der Wiedergabe
STOP/EJECT = Beenden der Wiedergabe/Öffnen des Cassettenfachdeckels
F.FWD = Schneller Vorlauf
REWIND = Schneller Rücklauf
PLAY ▶ = Cassetten-Wiedergabe
㉑ Laufwerktasten für **Deck 1**
(Aufnahme und Wiedergabe)
PAUSE II = Pause/Unterbrechen der Wiedergabe
STOP/EJECT = Beenden der Wiedergabe, Öffnen des Cassettenfachdeckels
F.FWD = Schneller Vorlauf
REWIND = Schneller Rücklauf
PLAY = Cassettenwiedergabe
RECORD = Aufnahmetaste
㉒ Cassettenfachdeckel **Deck A**
㉓ **PHONES** = Kopfhörerbuchse (3,5 mm Ø)
㉔ **DELAY TIME** = Surround-Zeitverzögerung zur Darstellung von Raumgröße
㉕ **CENTER MODE** = Wahl der Center-Betriebsart *NOR* (Normal)/*PHANTOM* (Phantom)/*WIDE* (Weit-Spektum)
㉖ **TEST TONE** = Testsignal zur Abstimmung aller Pegel
㉗ **PRO-LOGIC** = 5 Kanalwiedergabe
㉘ **2 CH** = Zweikanal-Wiedergabe (Mono/Stereo)
㉙ **3 STEREO** = DOLBY-Stereo (3 Kanal-Wiedergabe)
㉚ **VIDEO** = Wiedergabe von Zusatzgeräten
㉛ **POWER** = Ein-/Ausschalten
㉜ **STANDBY/MUTE** = Anzeige leuchtet bei Bereitschaft, blinkt bei gewählter **MUTE**-Funktion
㉝ **TAPE** = Cassettenwiedergabe
㉞ **AM/FM** = Radiobetrieb, wählen des Empfangsbereichs
AM = Mittelwelle
FM 1 = UKW
FM 2 = UKW
㉟ **MUTE** = Stummschalten der Lautstärke
㊱ **SLEEP** = Wählen der Ausschaltzeit
㊲ **HI SPEED DUBBING** = Wahl der Kopiergeschwindigkeit
㊳ **CD** = CD-Wiedergabe
㊴ **CENTER LEVEL** = Lautstärkeeinstellung Mitte +/- 10 dB
㊵ **SURROUND LEVEL** = Lautstärkeeinstellung der Surround-Lautsprecher +/- 10 dB
㊶ **DISC SKIP** = Wahl des CD-Faches 1 - 5
㊷ CD-Wechsler Schublade

Rückseite

㊸ **FM/75 Ω** (UKW) = Antennenbuchse
㊹ **AM** (MW) = Antennenanschlüsse
㊺ **VIDEO IN R/L** = Toneingang
R = rechter Kanal (rot)
L = linker Kanal (weiß)
㊻ **SUB WOOFER AMP OUT** = Ausgang für einen **Aktiven Subwoofer** (Basslautsprecher)
㊼ **SURROUND SPEAKER**-Anschlüsse 16 Ω
R = Rechter Kanal,
L = Linker Kanal (grau/schwarz)
㊽ **CENTER** = Lautsprecheranschluß 8 Ω (blau/schwarz)
㊾ **FRONT SPEAKER** = Stereolautsprecheranschlüsse 8 Ω
R = rechter Kanal,
L = linker Kanal (rot/schwarz)
㊿ **AC** = Netzanschluß 230 Volt~/50 Hz

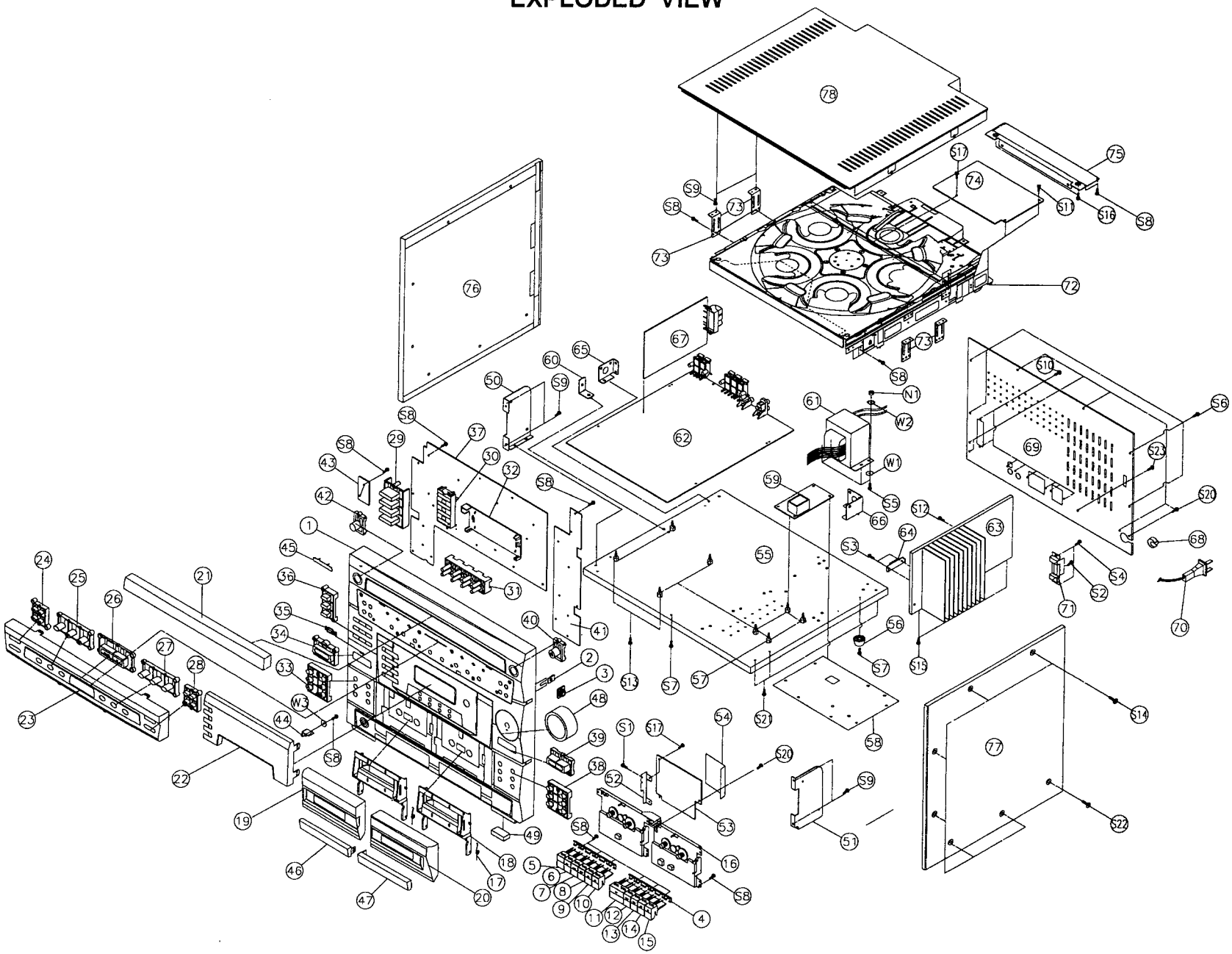
Anzeigen im Display

A **DOLBY SURROUND** = Funktion Ein-/Ausgeschaltet
3 STEREO = 3 Kanal-Wiedergabe
B **REPEAT** = Wiederholfunktion
C **SLEEP** = Abschaltautomatik
D **1 - 5** = Anzeige der CD-Plattennummer
E **HSD** = Anzeige erhöhte Kopiergeschwindigkeit
F **RECOR** = Aufnahme
G **X-BASS** = X-Bass-Funktion eingeschaltet
H **MONO** = Mono-Wiedergabe
STEREO = Stereo-Wiedergabe
I **MEMORY** = Speicherbereitschaft
J Titelnummer/Frequenzanzeige
K **II** = CD-Pause
L CD-Wiedergabe
M **RANDOM** = Zufallsreihenfolge
WIDE = Center-Betriebsart
PHAN = Center-Betriebsart
NOR = Center-Betriebsart

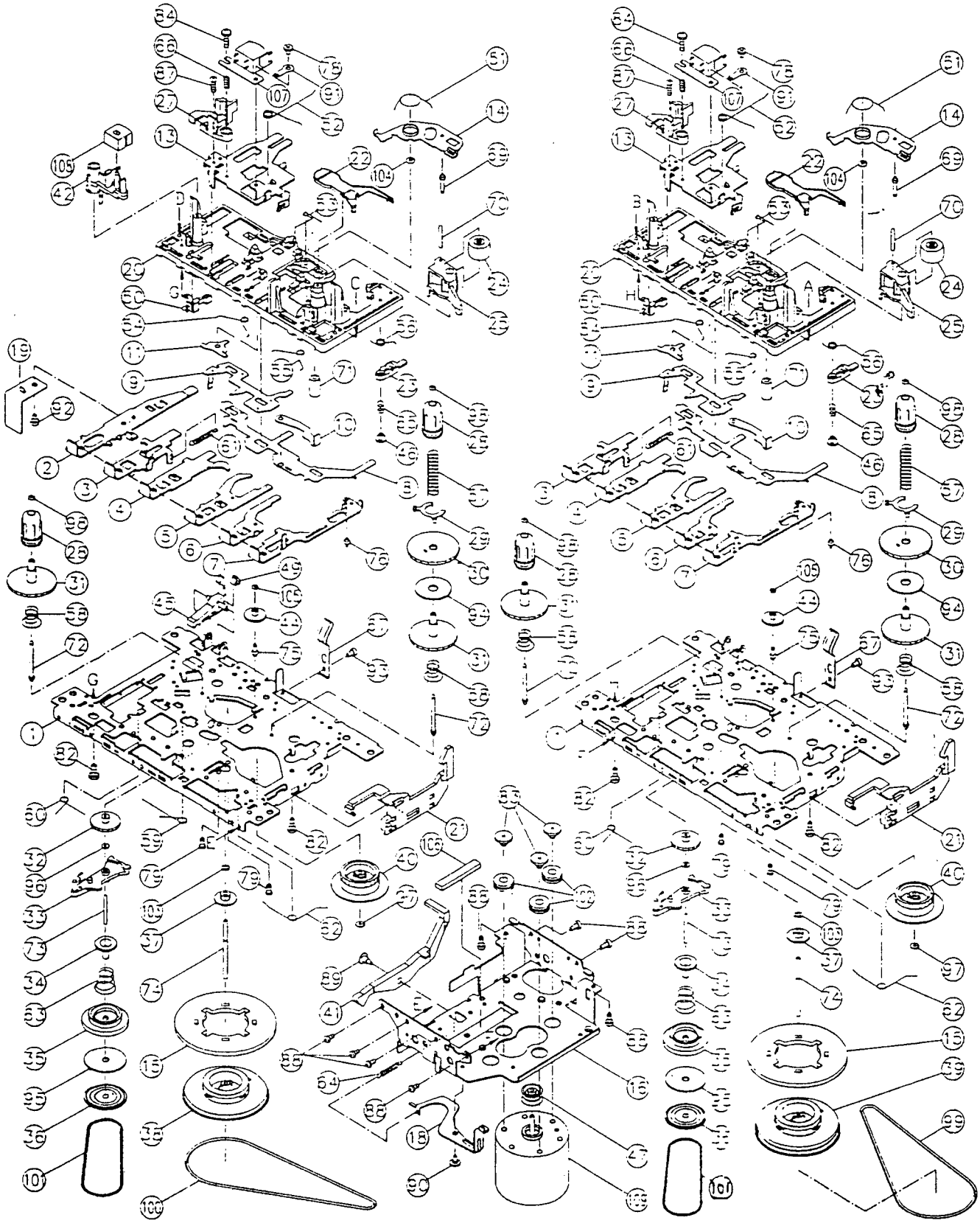
Fernbedienung

❶ **MUTE** = Stumschalten der Lautstärke
❷ **3 STEREO** = DOLBY-Stereo (3 Kanal-Wiedergabe)
❸ **2 CH** = Zweikanal-Wiedergabe (Mono/Stereo)
❹ **DISC SKIP** = Wahl des CD-Faches **1 - 5**
❺ **RANDOM/FREQ** = Zufallswiedergabe/Direktfrequenz
❻ **FUNKTION** = Funktionswahl **CD, TAPE, VIDEO, FM 1, FM 2** und **AM**
❼ **SELECT** = Funktionswahl von Balance, Bass und Treble
❽ **ADJ +** /- = Erhöhen bzw. von Balance, Bass und Treble
❾ **TUNING** △ = Einstellen der Frequenz nach oben (höhere Frequenzen)
TRACK = CD-Titelwahl vorwärts
TUNING ▽ = Einstellen der Frequenz nach unten (niedriegere Frequenzen)
TRACK = CD-Titelwahl rückwärts
❿ **VOLUME -** = Absenken der Lautstärke
VOLUME + = Erhöhen der Lautstärke
⓫ Batteriefach (Rückseite) für 2 x 1,5 V Mignon-Batterien
⓬ **■/CLEAR** = CD-Wiedergabe beenden, Programmierung löschen
⓭ **CD ▶/II** = CD-Wiedergabe und Unterbrechen
⓮ **MEMORY** = Senderspeichertaste
⓯ **0 - 8** = Zifferntasten
9/MONO = Stereo/Mono-Umschaltung
⓰ **PRO LOGIC** = 5 Kanal-Wiedergabe
⓱ **C. MODE** = Wahl der Center-Betriebsart *NOR* (Normal)/*PHAN* (Phantom)/*WIDE* (Weitwinkel)
⓲ **TEST TONE** = Testsignal zur Abstimmung aller Pegel
⓳ **POWER** = Abschalten auf Bereitschaft/Einschalten Betrieb

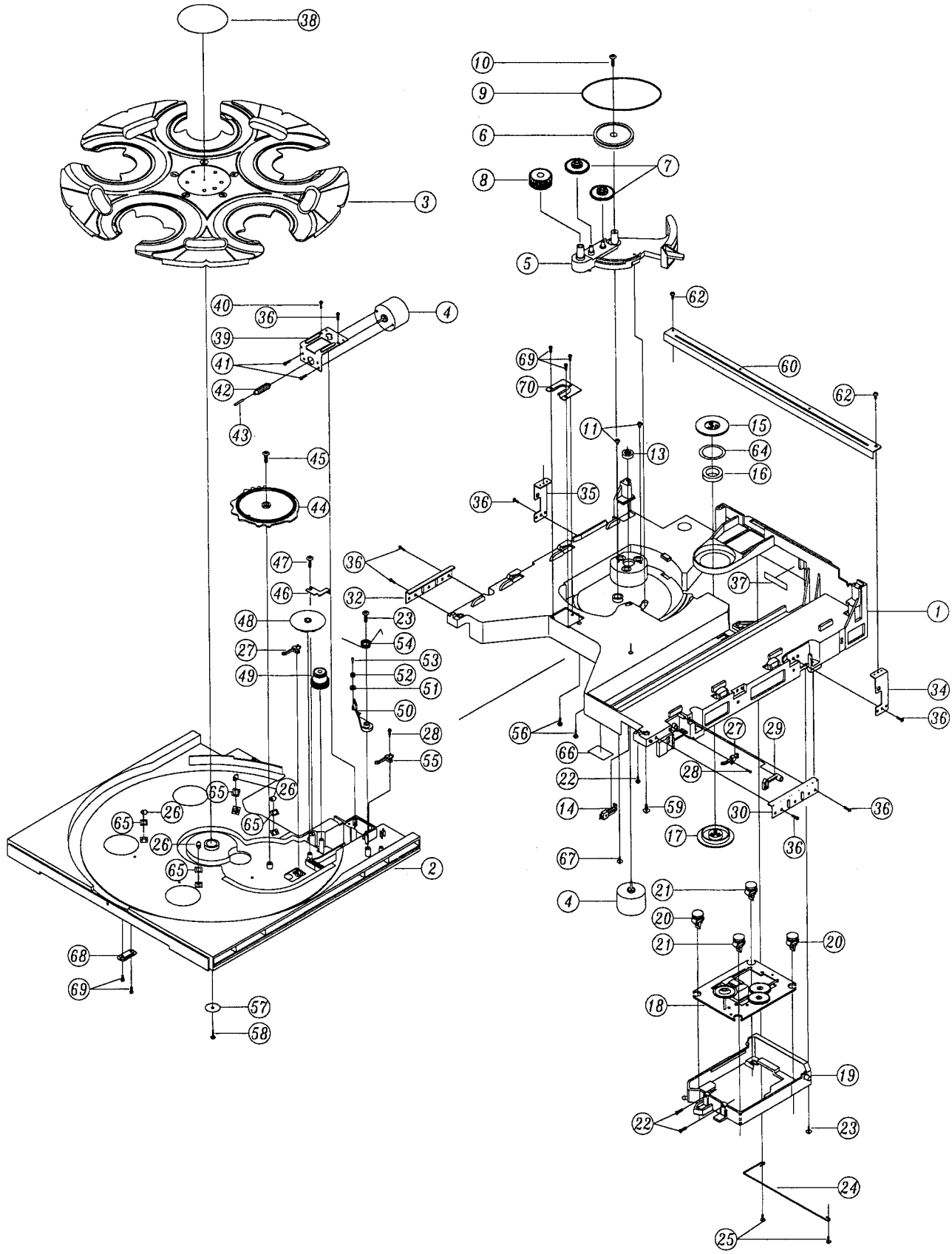
EXPLODED VIEW

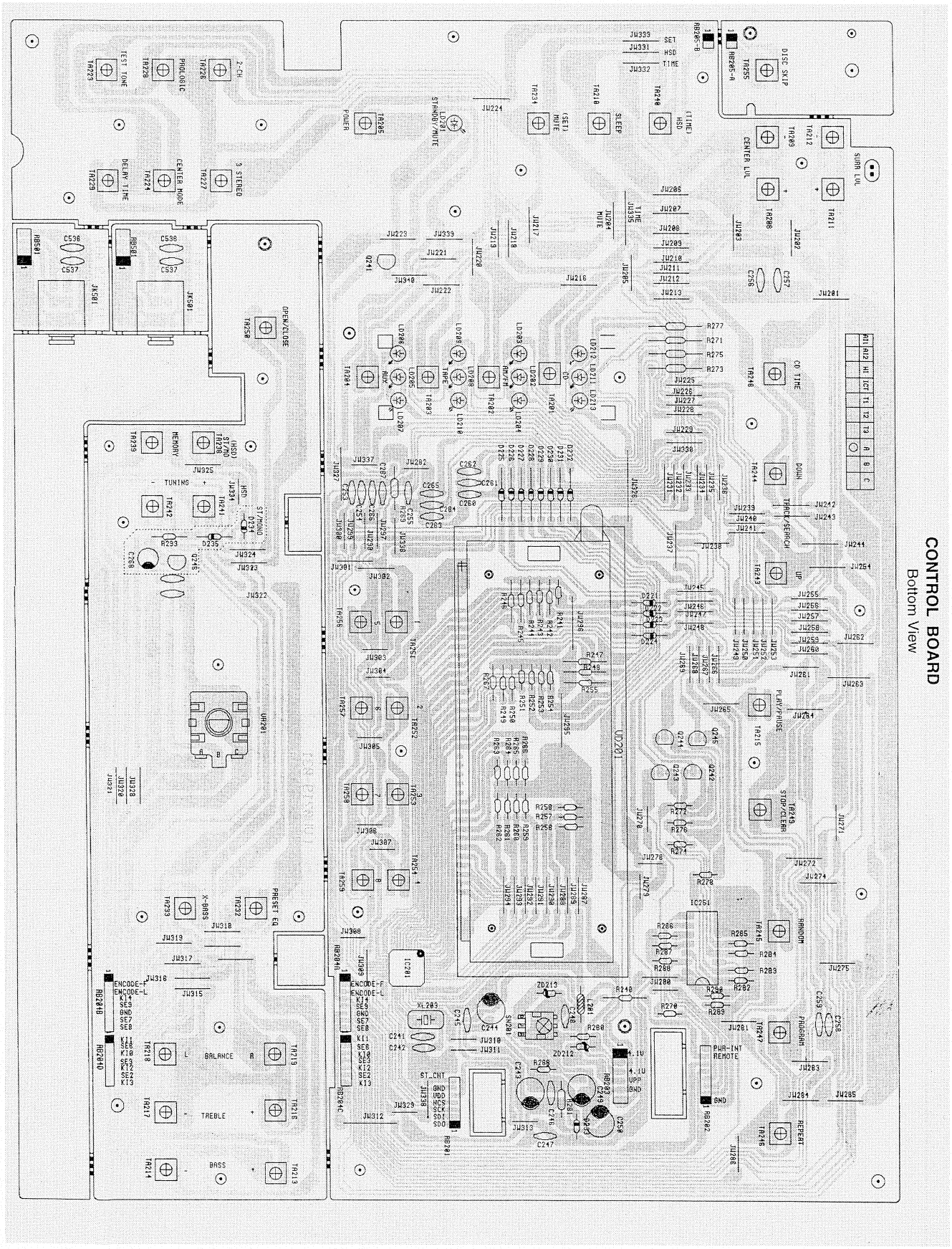


TAPE DECK MECHANISM EXPLODED VIEW



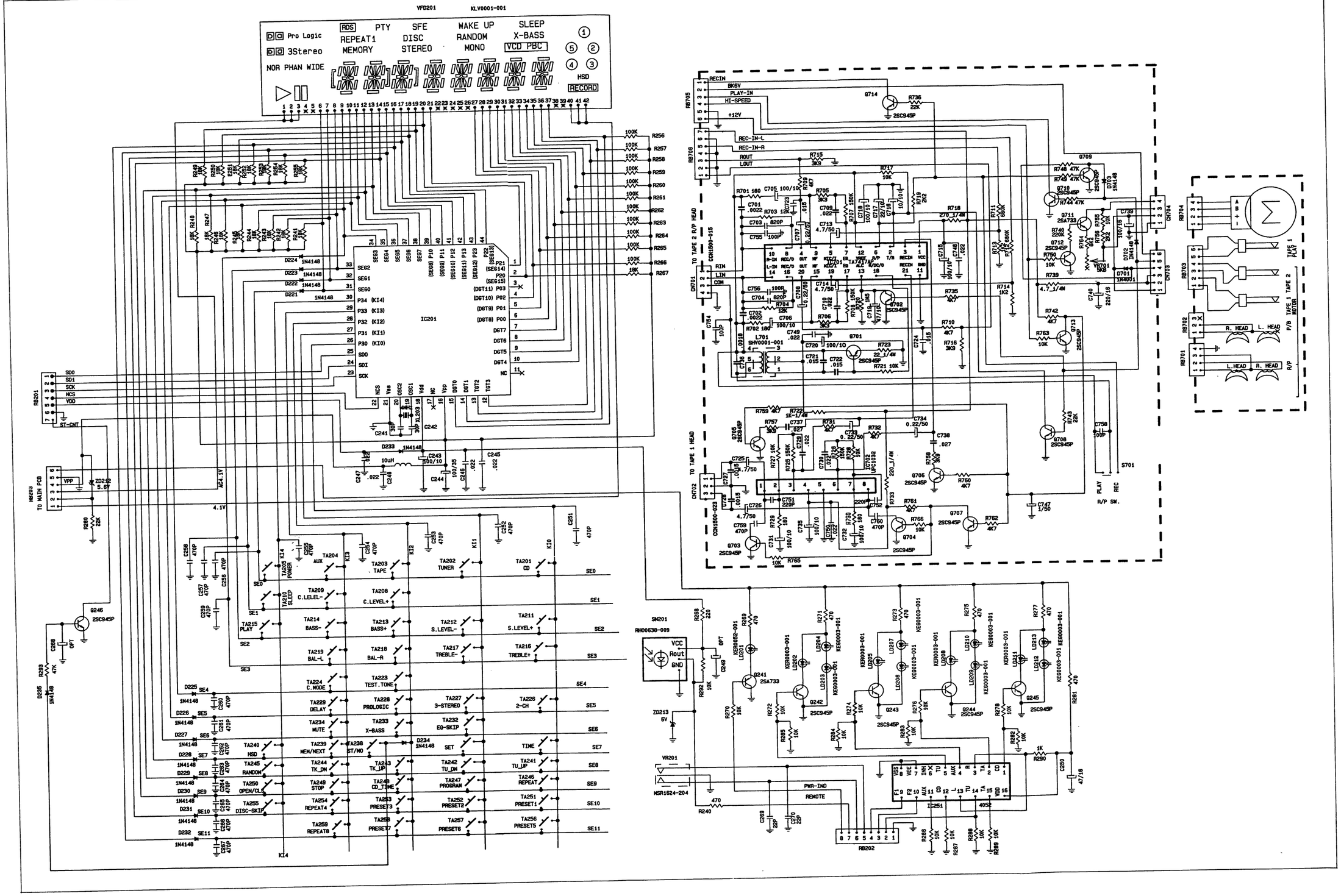
CD MECHANISM EXPLODED VIEW





CONTROL BOARD
Bottom View

SCHEMATIC DIAGRAM



ADJUSTMENT PROCEDURE

Test Conditions
AM (Amplitude Modulation)
Function ..... AM
Input Level 74dB/m (5mV/m)
Generator ..... Modulation 30%,400Hz

Test Conditions
FM (Frequency Modulation)
Function ..... FM
Input Level 60dB (1mV)
Generator ..... Deviation 22.5kHz, 1kHz

Step	Signal or Sweep Generator		Reception Frequency	Output Indicator / Connection	Adjustment	Adjust For
	Connection	Frequency				
AM TUNING VOLTAGE						
1	No Signal		1620kHz	DC Digital Voltmeter / R104	TC102	7.0+/-0.1V
2	No Signal		522kHz	Same as Step 1	L102	1.0+/-0.1V
3	Repeat Step 1 and 2 a few times.					
AM IF						
4	AM Loop Antenna at a distance of 24 inch(60 cm) from the IRT Loop	450kHz	Point of noninterferance	IF Sweep Generator / IC101 Pin 24	T102	Flat and Max
AM TRACKING						
5	Same as Step 4	620kHz	621kHz	RF Sweep Generator / IC101 Pin 24	L101	Max
6	Same as Step 4	1400kHz	1404kHz	Same as Step 5	TC101	Max
7	Repeat Step 5 and 6 a few times.					

Cartridge Torque Information Cassette Adjustments

Take Up Torque Adjustment

1. Insert a cassette torque meter type DM 300 or equivalent into the mechanism.
2. Measure the torque of the take-up reel in play back mode. The torque reading should be between 40 and 70 gcm.
3. If torque limit readings are out of limits, replace the take-up reel assy.

Fast Forward/Rewind Torque

1. Insert a 5 RK-CT cassette or equivalent to the mechanism.
2. Fast-forward and rewind the cassette. The fast-forward and rewind torque reading should be between 70 and 160 gcm.
3. If the torque reading is out of limits, replace the clutch assy.
4. Pinch roller torque DM 300 wow/flutter torque reading should be 375 gcm+-25.

   If the torque reading is out limits:

   A. Clean pinch roller.
   B. Replace pinch roller spring or pinch roller assy.

Tape Deck Service Adjustment

Azimuth Adjustments

The cassette door must be removed to make this adjustment.
Refer to the disassembly instructions. For adjusting, insert the cartridge and press the play button.

1. Use an MTT test tape No.113CN with right and left channels recorded at 8kHz.
2. Adjust the balance control to center.
3. Adjust azimuth for maximum output on both channels.

Lubricating

Clean all surfaces before lubricating. Apply a few drops of turbine oil to all bearings and rotating bushings. Apply a thin film of light grease to all sliding surfaces and detent rollers. Always wipe excess lubricant from parts. Apply a thin coat of viscous lubricant to plunger operating the cassette door.

Cleaning

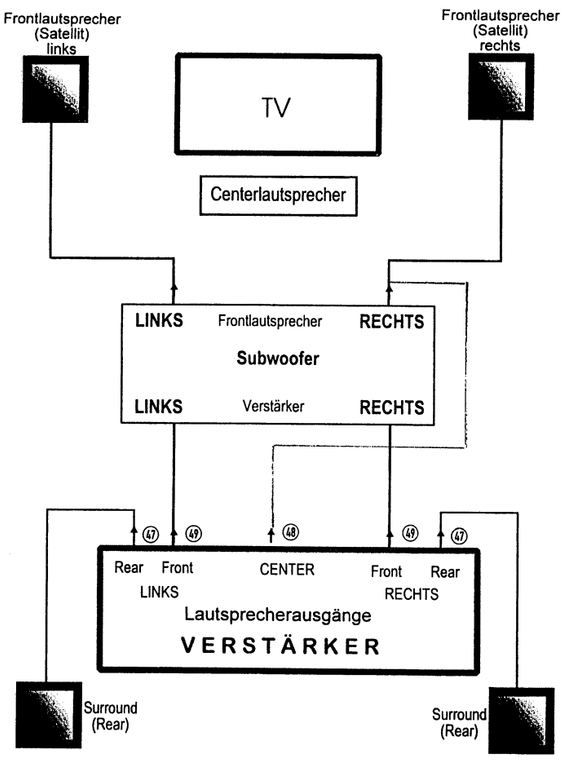
All head faces should be cleaned with head cleaner solution or methyl to remove dust and accumulated oxide. (Cotton swab may be used as an applicator.) Do not use a screwdriver or any metallic object near the head faces.

TROUBLESHOOTING GUIDE

Circuit	Symptom	Cause	Remedy
General	System no power	Defective fuse F901	Replace the fuse.
		Defective Back-up transformer	Replace the transformer.
	Power ON/OFF does not work	u-con system hold down	Reset u-con, short the C209 1 second.
		Power ON relay does not work	Check Q902, Q903 RL901 circuit.
		Defective Back-up Vcc	Check IC901, D904, IC905.
		Defective IC201 MN12510F	Check DA, CLK, CE. Check Vcc 5V. Replace the IC201 IF necessary.
	No sound output	Defective fuse F902, F903	Replace the fuse.
		RL501 relay does not work	Check RL501 & Q507. Replace IF necessary.
		Defective IC501 STK4231	Replace the IC501.
		Defective fuse F904, F905	Replace the fuse.
		Defective dolby prologic IC IC601 LV1030N	Replace the IC601.
		Defective function IC IC301 TDA7439	Replace the IC301.
Cassette	No PLAY	Defective deck motor	Replace the motor.
		Defeective IC701, or IC702	Check voltage and current for this circuit. Replace IF necessary.
	No RECORD	Defective IC701	Check voltage and current for this circuit. Check S701, R/P switch.
	Weak sound	PLAY or R/P head is dirty.	Use alcohol to clean the head.
Reciver	No Sound	Tuning up or down, VT (Tuning voltage) no change	Check IC102 voltage and data clock for this circuit. Replace IF necessary.
		Defective IF IC IC101	Check IC101 voltage for this circuit.
	AM/FM no change	Defective AM/FM switch circuit	Check Q004, Q005 voltage for this circuit.

Circuit	Symptom	Cause	Remedy
CD	CD tray does not OPEN/CLOSE	Defective IC806 LA6531	Check IC806 voltage for this circuit. Replace IF necessary.
	CD tray does not DISC SKIP	Defective IC806 LA6531	Check IC806 voltage for this circuit. Replace IF necessary.
	Playback does not begin with the first track number on the disc.	Defective Laser Pick-up	Check R808 laser current.
		Defective Pick-up driver	Check IC803 voltage for this circuit. Replace IF necessary.
		Laser Pick-up is dirty	Use clean disc to clean the Pick-up.

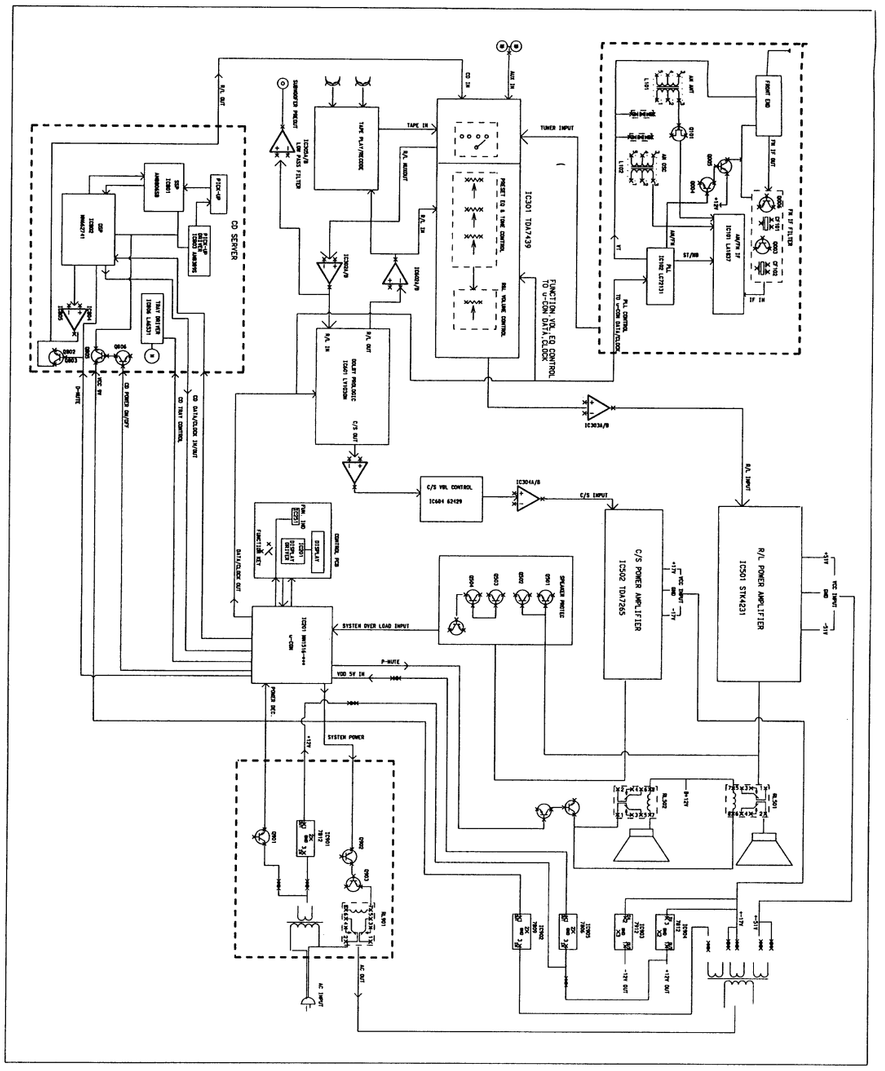
Anschlußschema für Subwoofer



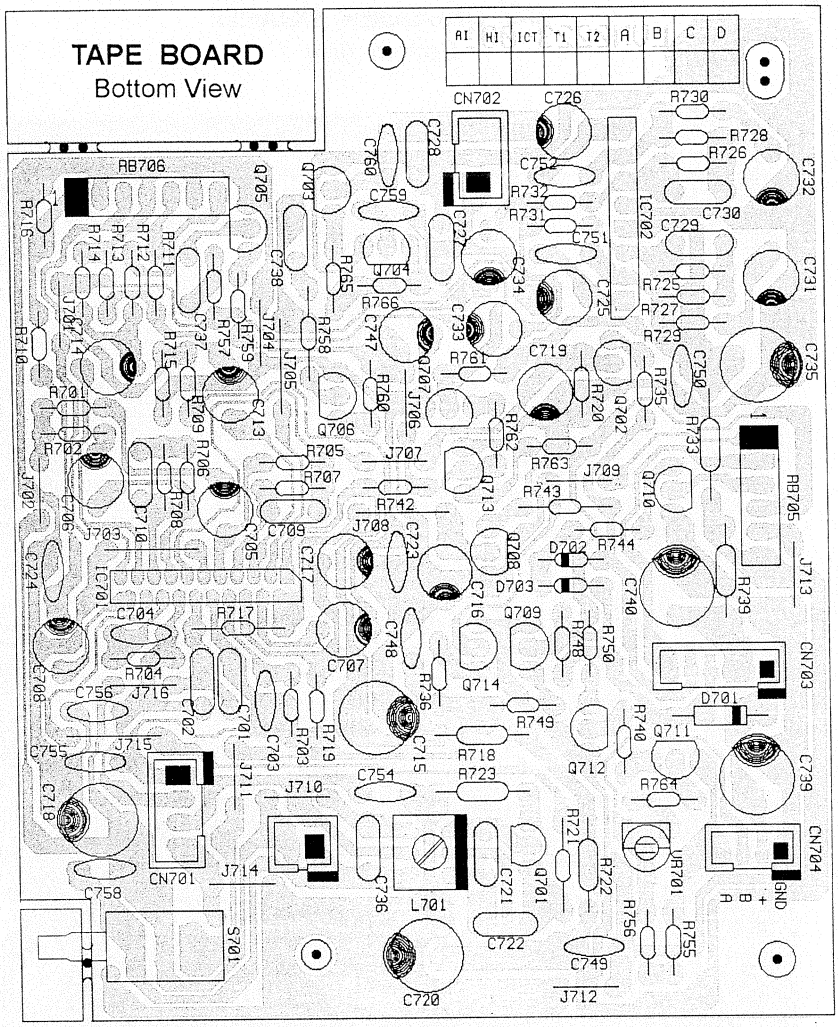
Achten Sie dabei auf gleiche Polarität. Stecken Sie von beiden Lautsprecherkabeln die rote Ader in die rote (Plus) + Klemme.

Vewenden Sie die farbig gekennzeichneten Lautsprecherkabel wie folgt:

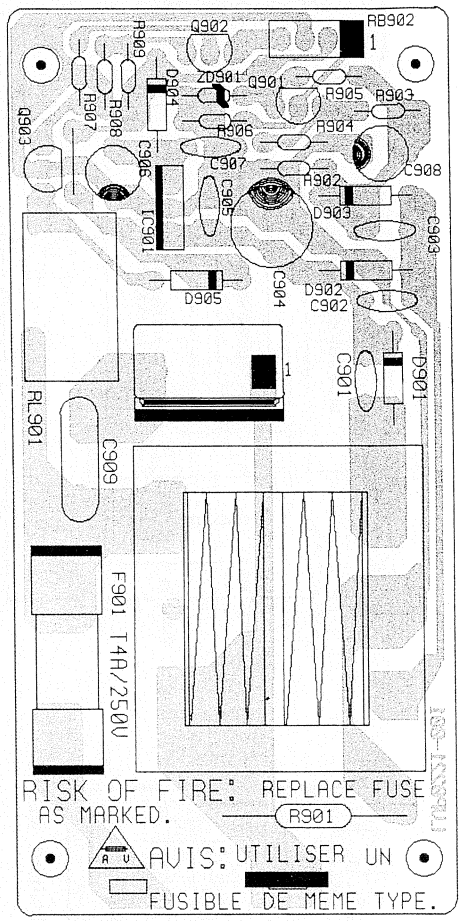
rot//schwarz = Front
blau/schwarz = Center
grau/schwarz = Surround



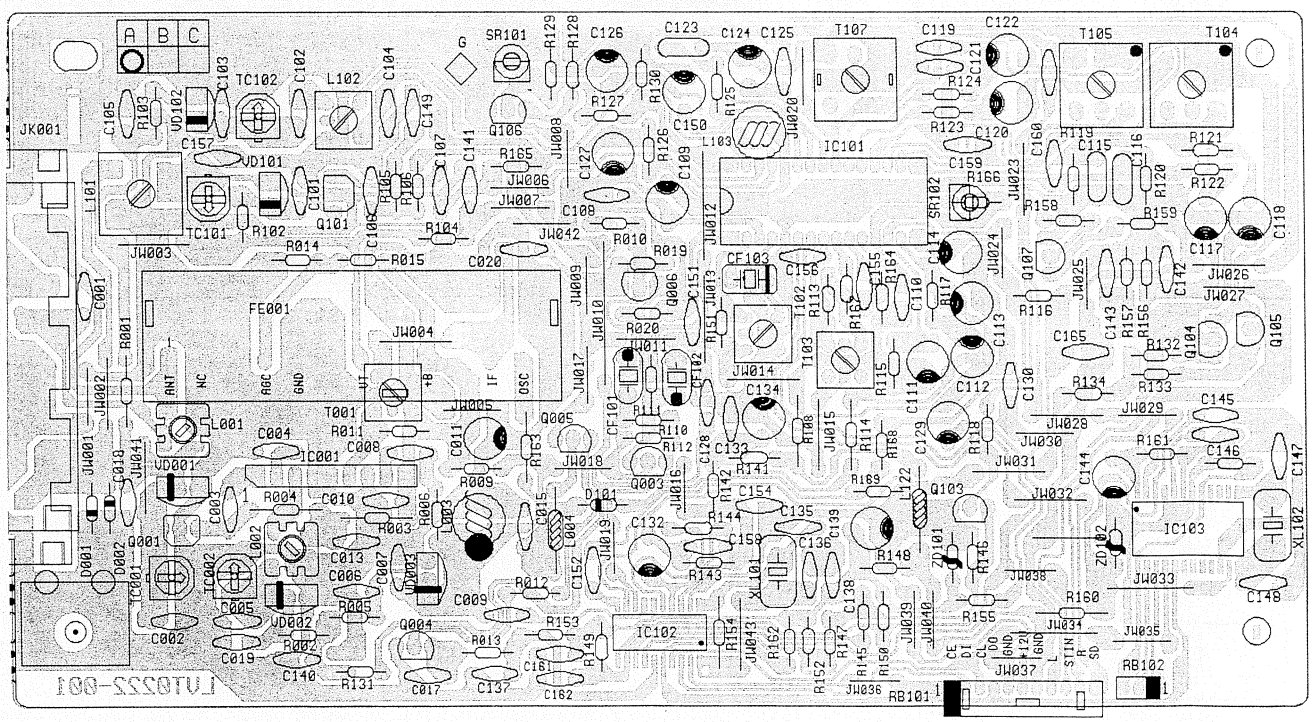
TAPE BOARD
Bottom View



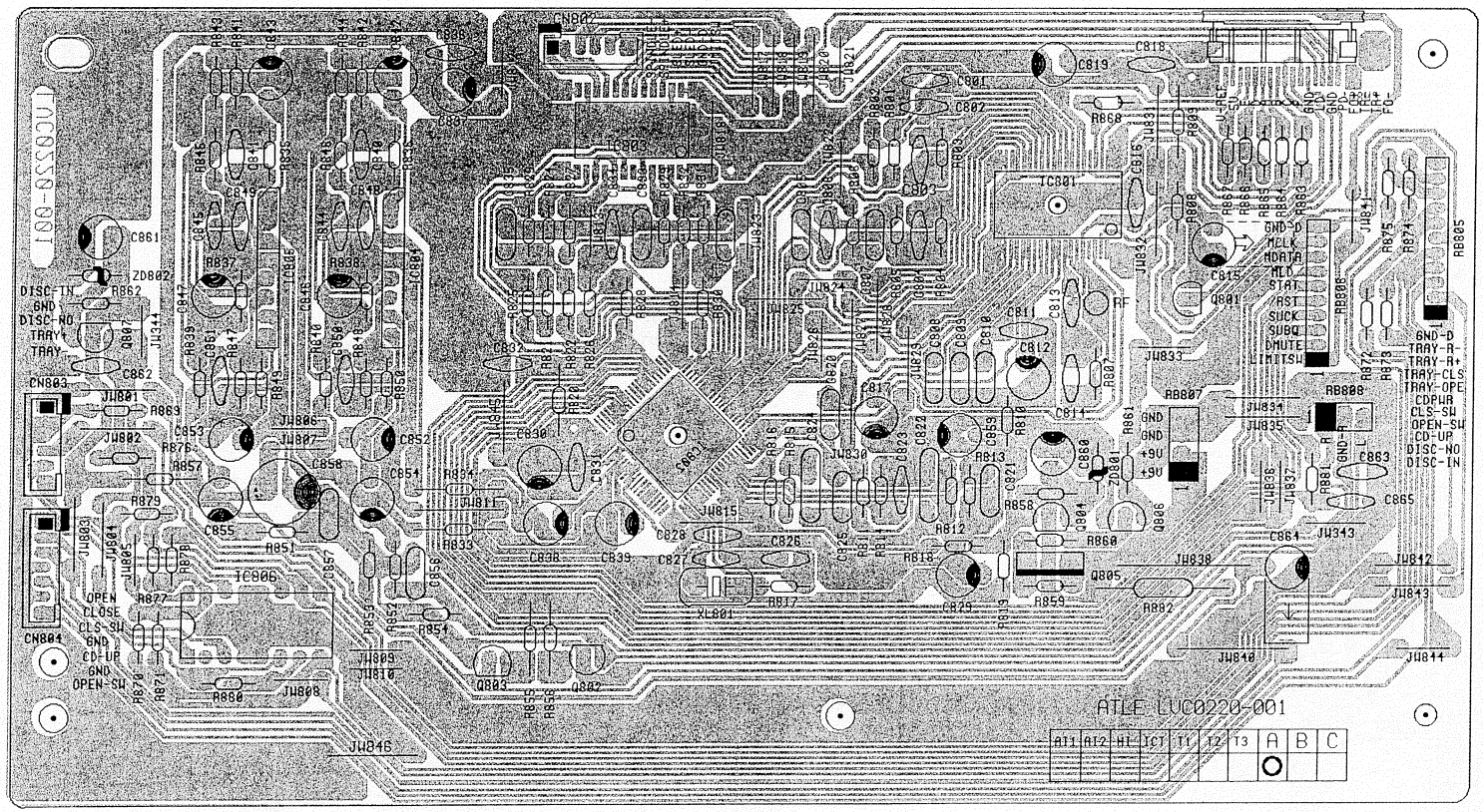
BACKUP BOARD



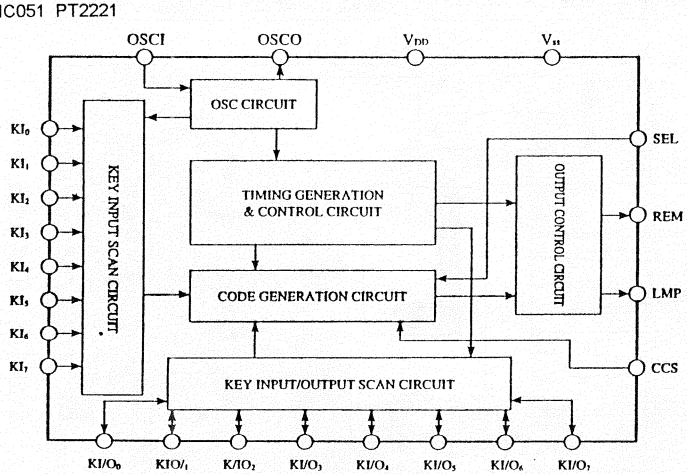
TUNER BOARD
Bottom View



CD DECODER BOARD
Bottom View

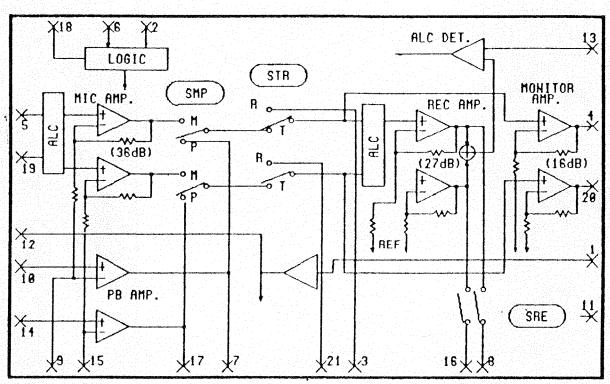


IC051 PT2221

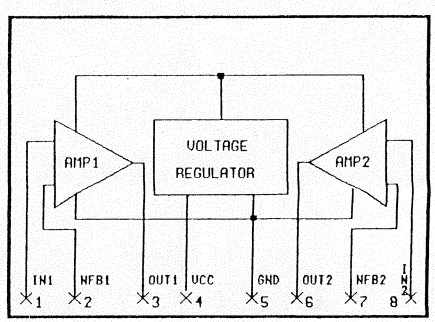


IC PIN BLOCK DIAGRAM

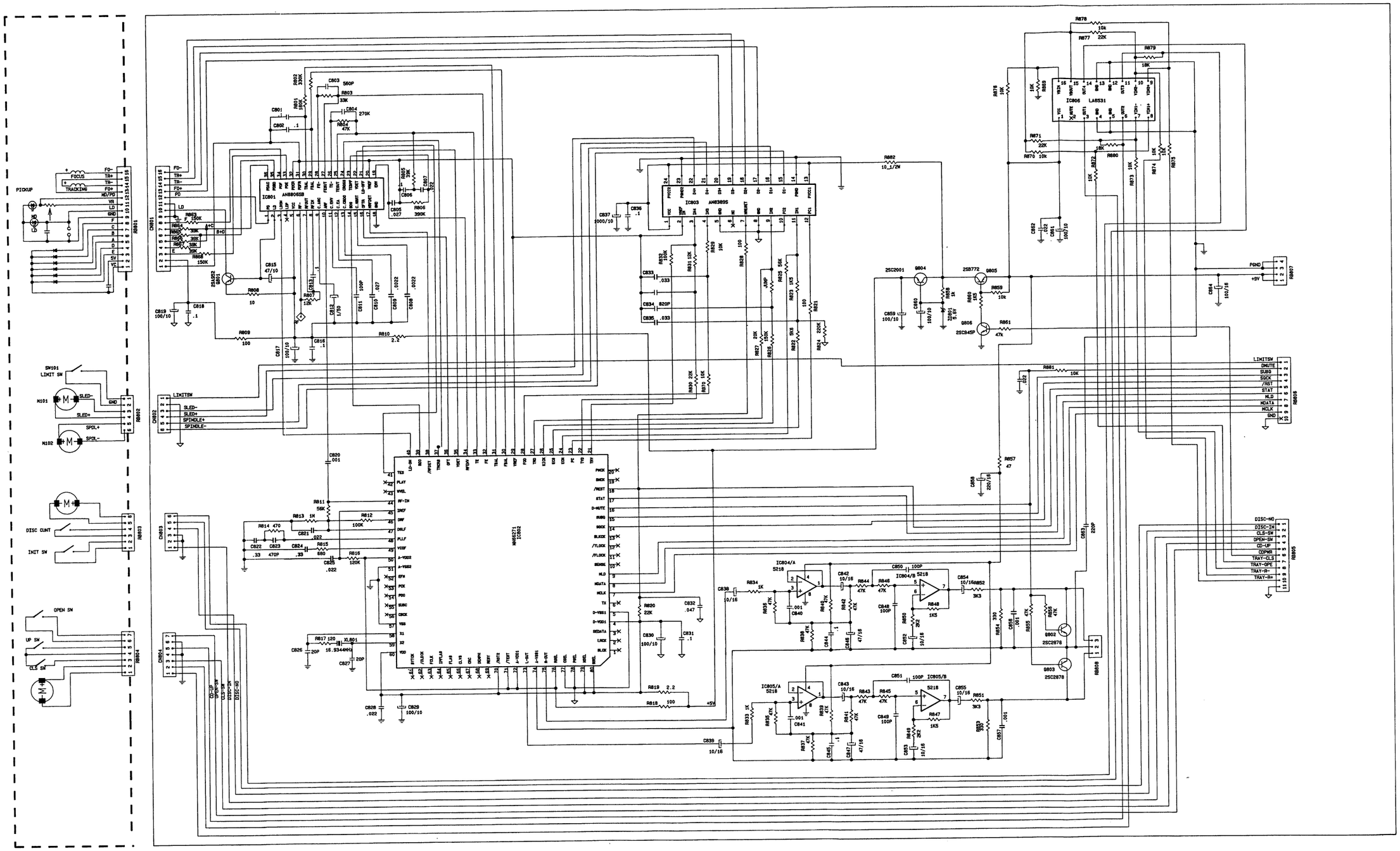
IC701 TA7417AP



IC702 UPC1032H

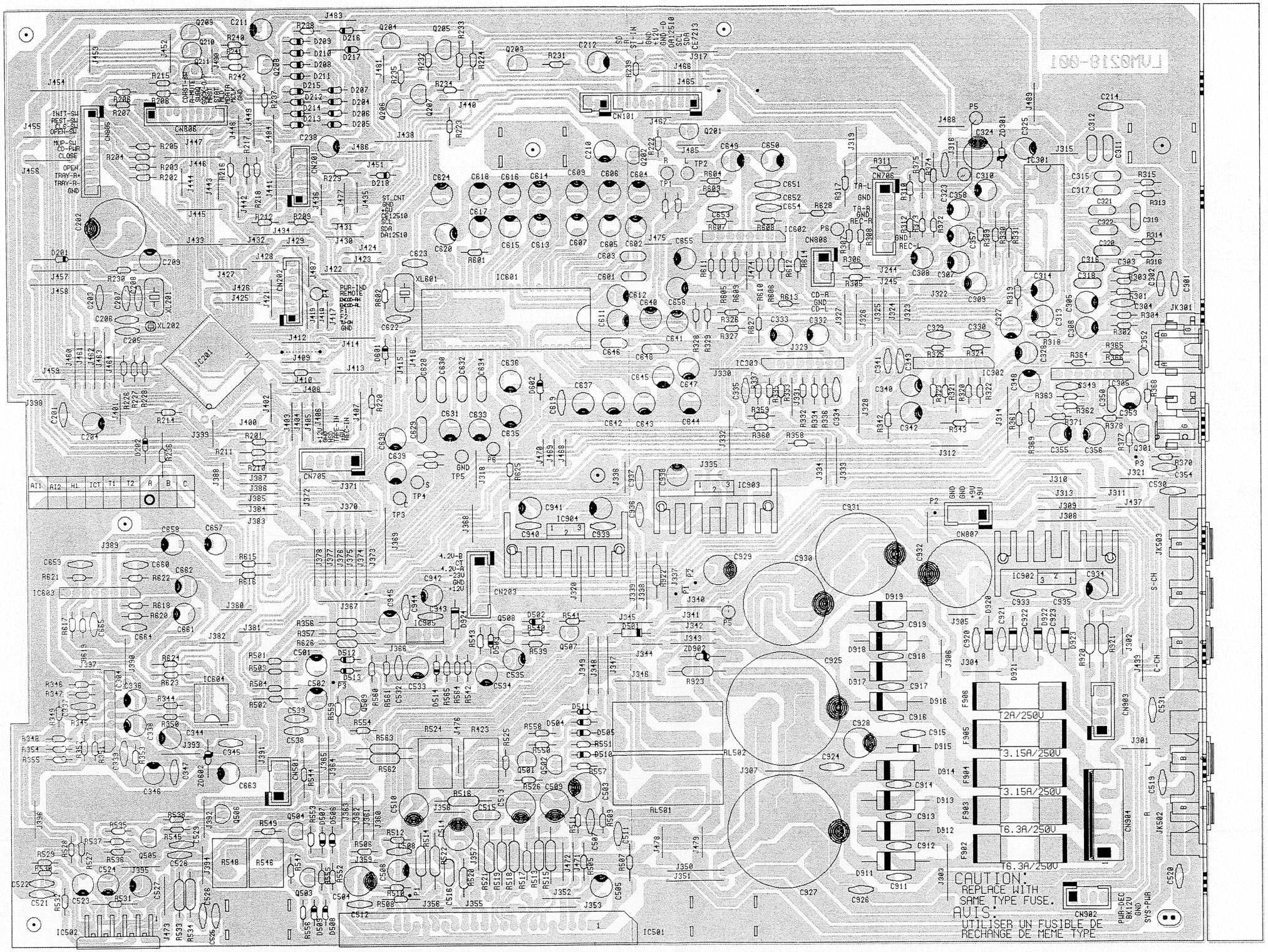


CD SCHEMATIC DIAGRAM

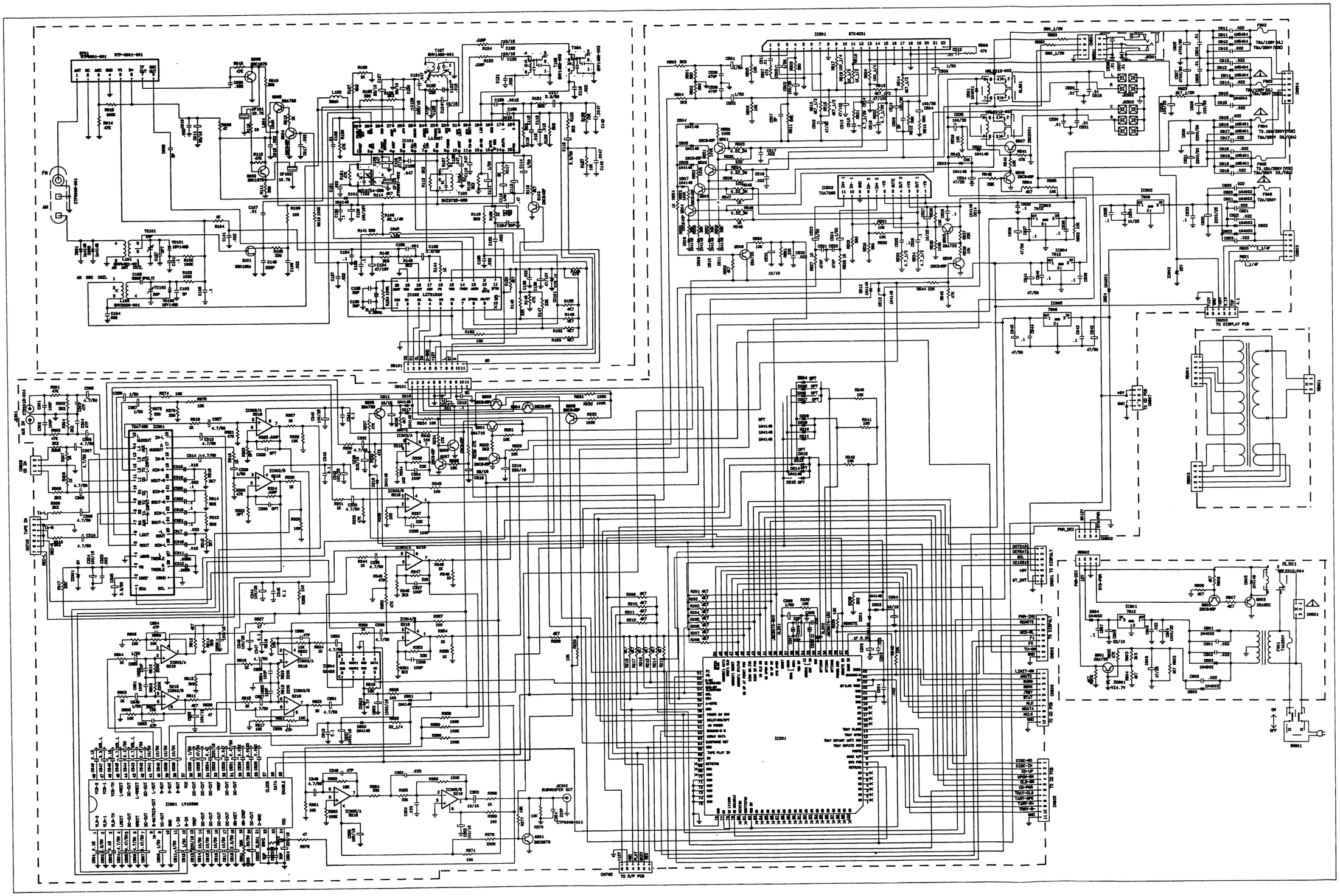


MAIN BOARD

Bottom View



SCHEMATIC DIAGRAM



LC72131M IC102

Pin No.	Symbol	Type	Function
1 20	XIN XOUT	X'tal OSC	• Crystal resonator connection (4.5/7.2 MHz)
14	FMIN	Local oscillator signal input	• Serial data input: FMIN is selected when DVS is set to 1. • The input frequency range is from 10 to 160 MHz. • The signal is passed through a built-in divide-by-two prescaler and then supplied to the swallow counter. • Although the range of divisor settings is from 272 to 65,535, the actual divisor is twice the setting since there is also a built-in divide-by-two prescaler.
13	AMIN	Local oscillator signal input	• Serial data input: AMIN is selected when DVS is set to 0. • Serial data input: When SNS is set to 1: — The input frequency range is from 2 to 40 MHz. — The signal is supplied directly to the swallow counter. — The range of divisor settings is from 272 to 65,535 and the actual divisor will be the value set. • Serial data input: When SNS is set to 0: — The input frequency range is from 0.5 to 10 MHz. — The signal is supplied directly to a 12-bit programmable divider. — The range of divisor settings is from 4 to 4,095 and the actual divisor will be the value set.
2	CE	Chip enable	• Must be set high when serial data is input to the LC72131 (DI), or when serial data is output (DO).
4	CL	Clock	• Used as the synchronization clock when serial data is input to the LC72131 (DI), or when serial data is output (DO).
3	DI	Data input	• Inputs serial data sent from the controller to the LC72131.
5	DO	Data output	• Outputs serial data sent from the LC72131 to the controller. • The content of the output data is determined by the serial data DOC0 to DOC2.
15	VDD	Power supply	• The LC72131 power supply (VDD = 4.5 to 5.5 V) • The power on reset circuit operates when power is first applied.
19	Vss	Ground	• The LC72131 ground
6 7 8 9	$\overline{BO1}$ $\overline{BO2}$ $\overline{BO3}$ $\overline{BO4}$	Output port	• Dedicated output pins. • The output states are determined by $\overline{BO1}$ to $\overline{BO4}$ in the serial data. Data: 0 = open, 1 = low • These pins go to the open state after the power on reset. • An 8 Hz time base signal can be output from $\overline{BO1}$ when TBC in the serial data is set to 1. • Note that the ON impedance of the $\overline{BO1}$ pin is higher than that of the other pins ($\overline{BO2}$ to $\overline{BO4}$).

AN8806SB IC801

Pin No.	Pin Name	I/O	Description
1	PD	I	Signal input of PD for LD output monitor.
2	LD	O	Connected to base of external Tr for LD drive.
3	LDON	I	ON/OFF switching of LD APC.
4	LDP	I	Switching of APC reference voltage.
5	Vcc		Supply connecting pin.
6	RF-	I	Reverse rotation input pin of RF Amp, for connecting a resistance.
7	RFOUT	O	Output pin of RF Amp. (reverse rotation amp.)
8	RFIN	I	RF AGC input pin.
9	C.AGC		C-connecting pin for RF AGC loop filter.
10	ARF	O	RF output pin after AGC.
11	C.ENV		C-connecting pin for RF.
12	C.EA		C-connecting pin for amp.
13	C.SBDO		C-connecting pin for low speed detection of dark level DO.
14	BDO	O	BDO detection output pin; positive logic.
15	C.SBRT		C-connecting pin for OFTR low speed detection.
16	OFTR	O	OFF TRACK detection output pin; positive logic.
17	NRFDET	O	Output pin of RF signal amplitude detection; negative logic.
18	GND		Ground pin.
19	ENV	O	ENV output pin.
20	VREF	O	Vcc x 0.5(V) output pin.
21	LD OFF	I	Input pin for forced stop of LD APC.
22	VDET	O	Output pin of vibration detection.
23	TEBPF	I	Input pin of vibration detection.
24	CROSS	O	Output pin of TE CROSS detection signal.
25	TEOUT	O	Output pin of TE Amp.
26	TE-	I	Inverting input pin of TE Amp. for connecting a resistance.
27	FEOUT	O	Output pin of FE Amp.
28	FE-	I	Inverting input pin of FE Amp. for connecting a resistance.
29	FBAL	I	Control signal input pin for FO balance adjustment.
30	TBAL	I	Control signal input pin for TE balance adjustment.
31	PDFR		Resistance connected pin setting the I-V conversion resistance value of PDE.
32	PDER		Resistance connected pin setting the I-V conversion resistance value of PDF.
33	PDE	I	Connected to PIN Diode E.
34	PDF	I	Connected to PIN Diode F.
35	PDBD	I	Connected to B/D of astigmatic 4-division PD.
36	PDAC	I	Connected to A/C of astigmatic 4-division PD.

Pin No.	Symbol	Type	Function
10 12	$\overline{IO1}$ $\overline{IO2}$	I/O port	• Pins used for both input and output. • The input or output state is determined by bits IOC1 and IOC2 in the serial data. Data: 0 = input port, 1 = output port • When specified for use as an input port: The input state is transmitted to the controller through the DO pin. Input state : Low --- data value = 0 High --- data value = 1 • When specified for use as an output port: The output state is determined by bits $\overline{IO1}$ and $\overline{IO2}$ in the serial data. Data: 0 = open, 1 = low • These pins go to the input port state after the power ON reset.
16	PD	Charge pump output	• PLL charge pum output When the frequency generated by dividing the local oscillator frequency by N is higher than the reference frequency, a high level will be output from the PD pin. Similarly, when that frequency is lower, a low level will be output. The PD pin goes to the high impedance state when the frequencies agree.
17 18	AIN AOUT	LPF amplifier transistor	• The MOS transistor used for the PLL active low-pass filter.
11	IFIN	IF counter	• The input frequency range is from 0.4 to 12 MHz. • The signal is supplied directly to the IF counter. • The result from the IF counter MSB is output through the DO pin. • There are four measurement periods: 4, 8, 32, or 64 ms.

M62429P IC604

Pin No.	Symbol	Function
1	VIN1	1-ch input pin
2	VOUT1	1-ch output pin
3	GND	Ground pin
4	DATA	Control data input pin. Inputs data in synchronization with clock.
5	CLOCK	Clock input pin for transferring serial data.
6	Vcc	Power supply pin. Stabilize the pin with decoupling capacitor.
7	VOUT2	2-ch output pin
8	VIN2	2-ch input pin

AN8389S IC803

Pin No.	Pin Name	I/O	DC Voltage (Vcc = 8V)	Description
1	Power Supply (SVcc)	I	8 V	PC (power cut) input controlling the output of Pin 15 and Pin 16.
2	VREF Input	I	2.5 V	VREF input pin.
3	Motor Driver 4 Input (IN4)	I	2.5 V	Error input pin of Driver 4.
4	Motor Driver 3 Input (IN3)	I	2.5 V	Error input pin of Driver 3.
9	Motor Driver 2 Input (IN2)	I	2.5 V	Error input pin of Driver 2.
11	Motor Driver 1 Input (IN1)	I	2.5 V	Error input pin of Driver 1.
5 8	GND	I	0 V	GND pin for control circuit of driver.
6	No Connection (NC)			
7	Reset Output (NRESET)	O		Reset output pin.
10	Power Cut Input 2 (PC2)	I	0 V	PC (power cut) input controlling the output of Pin 15 and Pin 16.
12	Power Cut Input 1 (PC1)	I	0 V	PC (power cut) input controlling the output of Pin 17 and Pin 18.
13	Power Supply 1 for Driver (PVcc1)	I	8 V	Power Vcc pin, supplying the current flowing for output power transistors of Pin 15, 16, 17 and 18.
24	Power Supply 2 for Driver (PVcc2)	I	8 V	Power Vcc pin, supplying the current flowing for output power transistors of Pin 19, 20, 21 and 22.
14	GND 1 for Driver	I	0 V	GND pin for output power transistors of Pin 15, 16, 17 and 18.
23	GND 2 for Driver	I	0 V	GND pin for output power transistors of Pin 15, 16, 17 and 18.
15	Motor Driver 1 Reverse Output (D1-)	O	0 V	Reverse rotation output pin of Driver 1.
16	Motor Driver 1 Reverse Output (D1+)	O	0 V	Normal rotation output pin of Driver 1.
17	Motor Driver 2 Reverse Output (D2-)	O	0 V	Reverse rotation output pin of Driver 2.
18	Motor Driver 2 Reverse Output (D2+)	O	0 V	Normal rotation output pin of Driver 2.
19	Motor Driver 1 Reverse Output (D3-)	O	0 V	Reverse rotation output pin of Driver 3.
20	Motor Driver 1 Reverse Output (D3+)	O	0 V	Normal rotation output pin of Driver 3.
21	Motor Driver 2 Reverse Output (D4-)	O	0 V	Reverse rotation output pin of Driver 4.
22	Motor Driver 2 Reverse Output (D4+)	O	0 V	Normal rotation output pin of Driver 4.

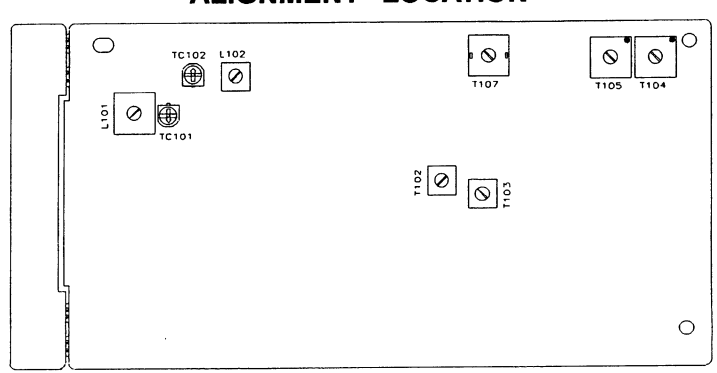
LA1837 IC101

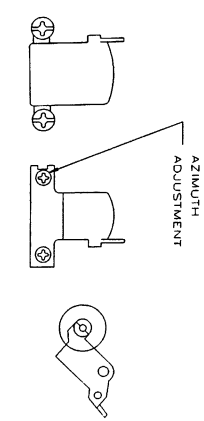
Pin No.	Pin Function	Pin voltage (V)
1	FM IF input	Vreg
2	AM mixer output	Vcc
3	FM IF input bypass	Vreg
4	AM IF input	Vreg
5	GND	0 V
6 7	TU - LED ST - LED AM-IF output	Vcc Vcc
8	Vcc	Vcc
9	FM detector	Vcc
10	AM narrow band CF connection	1.3 V
11	FM S-meter output	0 V
12	AM S-meter output AM SD sensitivity adjustment	0 V (AM)
13	AM and FM IF buffer output, output control switch (mute switch)	0 V
14	Phase comparator low-pass filter (FM/AM switching)	Vcc - 1.4 (FM) 0 V (AM)
15	Pilot detector low-pass filter (forced mono) (VCO stop)	Vcc - 1.0
16 17 18 19	Post amplifier input and output	Vreg Vreg
20 21	MPX output	3.5 V 3.5 V
22	MPX input	2.9 V
23	FM demodulator output	2.8 V (FM) 2.8 V (AM)
24	AM detector output	0 V (FM) 0.5 V (AM)
25	AM AGC	0 V (FM) 0.5 V (AM)
26	AFC	Vreg
27	AM RF input	Vreg
28	REG	Vreg
29	OSC	Vreg
30	Oscillator buffer output, FM SD sensitivity adjustment	1.6 V (FM) 1.3 V (AM)

TA7417AP IC701

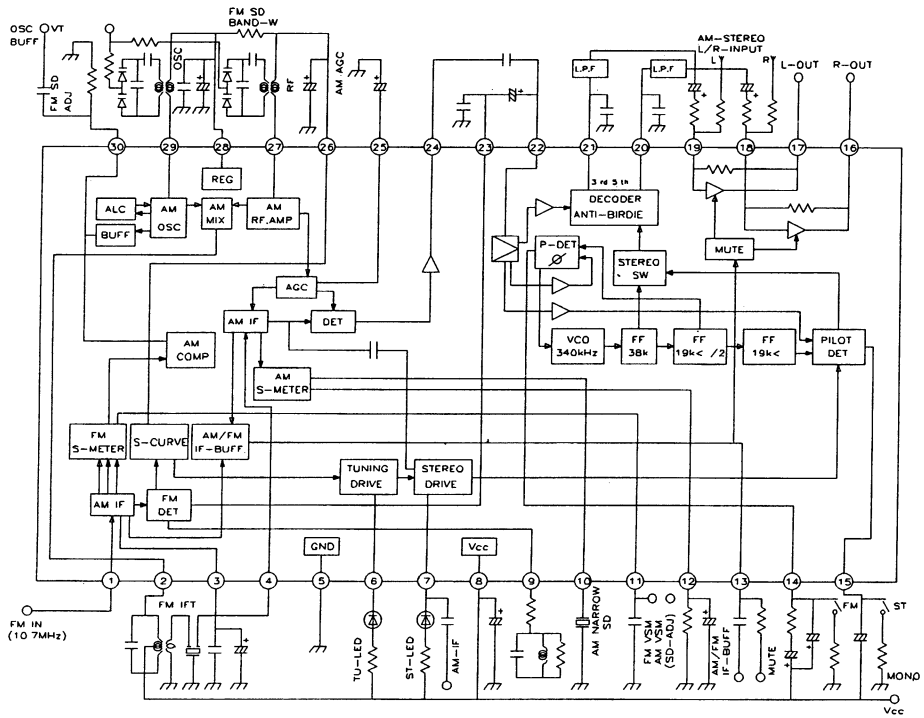
Terminal No.	Terminal Name	Function
1	VCC	VCC
2	TAPE/RADIO SW	Change over switch for Tape mode and radio mode. Tape mode: Tape play MIC REC Radio mode: Radio play Radio REC
3/21	RADIO (AUX) IN	Radio or Aux. input
4/20	MONITOR OUT	Monitor Amp output
5/19	MIC IN	Mic Amp output
6	REC/PLAY SW	Change over switch for REC mode and play mode. REC mode: MIC REC Radio REC Play mode: Tape play Radio play
7/17	TAPE OUT	Tape playback Amp (PB AMP) output
8/16	REC OUT	Recording Amp output
9/15	PB NF	Tape playback Amp (PB AMP) NF
10/14	TAPE IN	Tape playback Amp (PB AMP) input
11	GND	GND
12	REFERENCE	Reference voltage terminal
13	AGC T.C	Automatic level control (AGC) time constant terminal
18	Vstb	Recording bias circuit control signal output

ALIGNMENT LOCATION

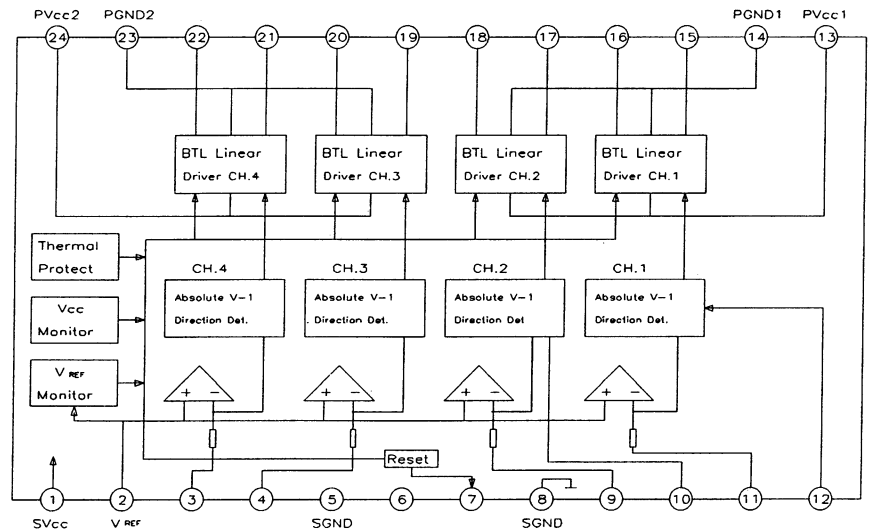




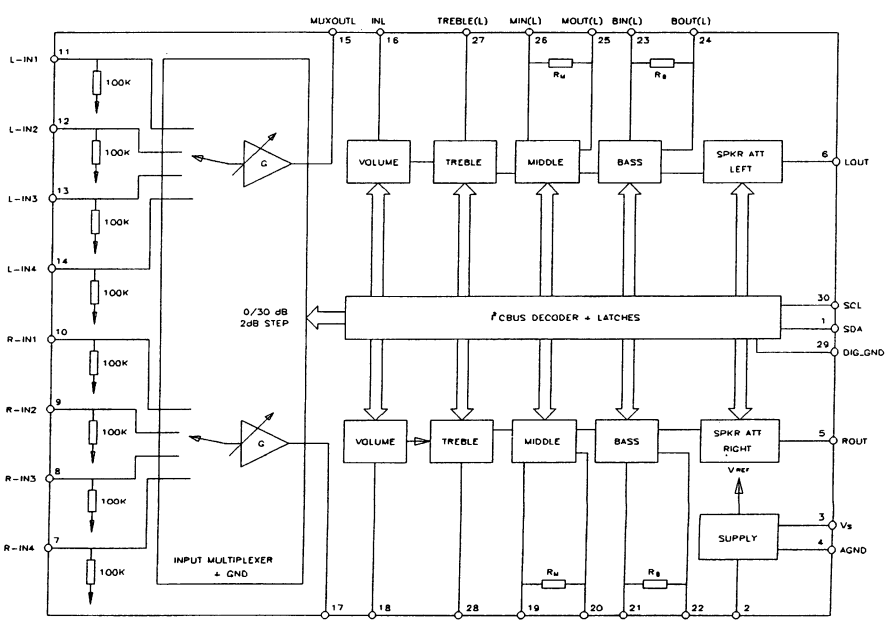
IC101 LA1837



IC803 AN8389S



IC301 TDA7439



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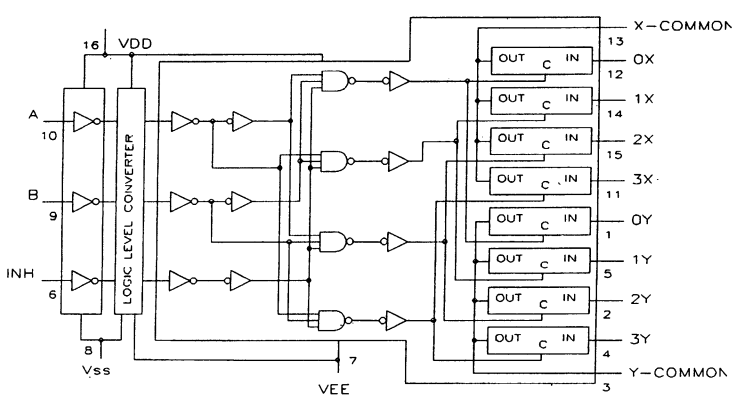

IC604 M62429P